Louisville Metro Air Pollution Control District

850 Barret Ave., Louisville, Kentucky 40204

06 26 2014

Federally Enforceable District Origin Operating Permit
Statement of Basis

Company: MISA Metal Fabricating, Inc.

Plant Location: 7101 International Drive, Louisville, KY 40258

Date Application Received: 2/22/2008; 10/03/2012; 2/21/2014; 3/24/2014; 3/25/2014

Date of Draft Permit: 06 26 2014 **Date of Proposed Permit:** 06 26 2014

District Engineer: Chris Gerstle **Permit No:** 27914-14-F

Plant ID: 1639 **SIC Code:** 3441 **NAICS**: 332312 **AFS:** 01639

Introduction:

This permit will be issued pursuant to District Regulation 2.17- *Federally Enforceable District Origin Operating Permits*. Its purpose is to limit the plant wide potential emission rates from this source to below major source threshold levels and to provide methods of determining continued compliance with all applicable requirements.

Jefferson County is classified as an attainment area for lead (Pb), nitrogen dioxide (NO_2), carbon monoxide (CO), 1 hr and 8 hr ozone (O_3), and particulate matter less than 10 microns (PM_{10}); and is a non-attainment area for particulate matter less than 2.5 microns ($PM_{2.5}$) and partial non-attainment for sulfur dioxide (SO_2).

Application Type/Permit Activity:

[X] Initial Issuance

[ ] Permit Revision
[ ] Administrative
[ ] Minor
[ ] Significant

[ ] Permit Renewal

Compliance Summary:

[ ] Compliance certification signed
[ ] Source is out of compliance
[ ] Compliance schedule included
[X] Source is operating in compliance

I. Source Information

1. Product/Process Description: The source is a steel processing operation, providing oxy fuel, plasma, laser cutting and band-sawing services.

2. Site Determination: MISA Metal Processing located at 7300 Global Drive is contiguous or adjacent and under common control. This facility does not contain any equipment requiring a permit.

3. Emission Unit Summary:

Unit	Name
U-001	Steel Cutting Area
U-002	Spray Booth Area
U-003	Shot Blast Area
U-005	Welding and Grinding Area
IA	Insignificant Activities
IA-U-004	Cold Solvent Wash
IA-EG	Emergency Generator(s)

4. Fugitive Sources: There are no fugitive source emissions at this facility.

5. Permit Revisions:

Revision No.	Date or Reissuance	Public Notice Date	Type	Emission Unit	Description
Initial	Xx/xx/2014	06/26/2014	Initial	Entire Permit	Initial Issuance

6. Plant-wide Emission Summary:

Pollutant	Potential Emissions (tpy)	Major Source Status (based on PTE)
CO	8.34	No
NO_x	9.93	No
SO_2	0.06	No
PM/PM_{10}	2,010/1,733	Yes
VOC	21.45	No
Single HAP (Manganese)	26.09	Yes
Total HAPs	45.57	Yes
GHG	11,916	No

7. Applicable Requirements:

[ ] PSD [ ] 40 CFR 60 [X] 40 CFR 63 [X] SIP
[ ] NSR [ ] 40 CFR 61 [ ] District-Origin [ ] Other

8. MACT Requirements:

The source has no future MACT regulations.

9. Referenced Federal Regulations in Permit:

40 CFR 63, Subpart XXXXXX	National Emission Standards for Hazardous Air Pollutants Area Source Standards for Nine Metal Fabrication and Finishing Source Categories

II. Regulatory Analysis

1. Acid Rain Requirements: The source is not subject to the Acid Rain Program.

2. Stratospheric Ozone Protection Requirements: Title VI of the CAAA regulates ozone depleting substances and requires a phase-out of their use. This rule applies to any facility that manufactures, sells, distributes, or otherwise uses any of the listed chemicals. This source does not manufacture, sell, or distribute any of the listed chemicals. The source's use of listed chemicals is that in fire extinguishers, chillers, air conditioners and other HVAC equipment.

3. Prevention of Accidental Releases 112(r): The source does not manufacture, process, use, store, or otherwise handle one or more of the regulated substances listed in 40 CFR Part 68, Subpart F, and District Regulation 5.15, *Chemical Accident Prevention Provisions*, in a quantity in excess of the corresponding specified threshold amount. If the source becomes subject to 40 CFR 68 and Regulation 5.15, the source shall comply with the Risk Management Program and Regulation 5.15 and submit a Risk Management Plan to:

RMP Reporting Center
P.O. Box 3346
Merrifield, VA 22116-3346

4. 40 CFR Part 64 Applicability Determination: The source is not subject to 40 CFR Part 64 - Compliance Assurance Monitoring for Major Stationary Sources.

5. Basis of Regulation Applicability

a. **Plant-wide**

The source is a potential major source for the pollutants PM_{10}, Single HAP Manganese, and Total HAP. Regulation 2.17 – F*ederally Enforceable District Origin Operating Permits* establishes requirements to limit the plant wide potential emission rates to below major source threshold levels and to provide methods of determining continued compliance with all applicable requirements.

As defined by Regulation 5.00, section 1.13.5, in order to be an exempt stationary source in regards to STAR, the source has applied for an operating permit in accordance with Regulation 2.17 with emission limits that do not exceed the following:

Pollutant	Emissions (tpy)
PM_{10}	25
Single HAP	5
Total HAP	12.5

Regulation 2.17, section 5.2 requires monitoring and record keeping to assure ongoing compliance with the terms and conditions of the permit. The owner or operator shall maintain all the required records for a minimum of 5 years and make the records readily available to the District upon request.

Regulation 2.17, section 7.2, requires stationary sources for which a FEDOOP is issued shall submit an annual compliance certification by April 15. In addition, as required by Regulation 2.17, section 5.2, the source shall submit an annual compliance report to show compliance with the permit, by March 1 of the following calendar year. Compliance reports and compliance certifications shall be signed by a responsible official and shall include a certification statement per Regulation 2.17, section 3.5.

b. **Applicable Regulations:**

Regulation	Title	Type
2.03	Permit Requirements – Non-Title V Construction and Operating Permits and Demolition/Renovation Permits	SIP
6.18	Standards of Performance for Solvent Metal Cleaning Equipment	SIP
7.08	Standards of Performance for New Process Operations	SIP
7.59	Standard of Performance for New Miscellaneous Metal Parts and Products Surface Coating Operations	SIP
40 CFR 63 XXXXXX	National Emission Standards for Hazardous Air Pollutants Area Source Standards for Nine Metal Fabrication and Finishing Source Categories	Federal

c. **Basis for Applicability**

Regulation	Basis for Applicability
2.03	Establishes requirements for Permits to Construct and Operate.
6.18	Applies to cold cleaners.
7.08	Equipment installed after September 1, 1976 and subject to the PM emission standard.
7.59	Applies to each coating line that applies coatings on a metal substrate which commenced after May 20, 1981.
40 CFR 63 XXXXXX	Applies to each new and existing metal product that have the potential to emit metal fabrication or finishing metal HAP (MFHAP), defined to be the compounds of cadmium, chromium, lead, manganese, and nickel, or any of these metals in the elemental form with the exception of lead.

d. **Emission Unit U-001 Steel Cutting Area**

i. **Equipment**

Emission Process	Description	Applicable Regulations	Install Date
E-01	Plasma Arc Cutting Table	7.08 40 CFR 63 XXXXXX	6/99
E-02	Oxy Fuel Cutting Table		1998
E-03	Oxy Fuel Cutting Table		1998
E-04	Oxy Fuel Cutting Table		11/05
E-05	Oxy Fuel Cutting Table		1998
E-06	Plasma Arc Cutting Table		2013
E-07	Laser Cutting Table w/Fume Control		2002
E-08	Laser Cutting Table w/Fume Control		2008
E-09	Laser Cutting Table w/Fume Control		2008
E-19	Laser Cutter		2009
E-15	Robot Plasma Cutter		2008

ii. **Standards/Operating Limits**

1) **Opacity**

Regulation 7.08, section 3.1.1 establishes an opacity standard.

2) **PM/PM_{10}**

In accordance with Regulation 7.08, Table 1, PM standard for each cutter is:

$E = 3.59 \times (<0.5)^{0.62} = 2.34$ lb/hr
(The source submitted a one-time demonstration on October 3, 2012 that shows the potential uncontrolled PM emissions cannot exceed the PM emission standard.)

3) **HAP**

Regulation 40 CFR 63, subpart XXXXXX establishes management practices to be implemented by the source.

e. **Emission Unit U-002 Spray Booth Area**

i. **Equipment**

Emission Process	Description	Applicable Regulations	Install Date
E-10	Spray Booth w/Dry Filters for Control	7.08 7.59	4/2007
E-11	Spray Booth Drying Enclosure (Electric Oven)		2/2008

ii. **Standards/Operating Limits**

1) **VOC**

Regulation 7.59, section 3.1 specifies VOC content limits for all coatings used in the paint booth. If the VOC content limits cannot be met, section 5.2 establishes a five tons per year limit on affected facilities.

2) **Opacity**

Regulation 7.08, section 3.1.1 establishes an opacity standard.

3) **PM**

In accordance with Regulation 7.08, Table 1, PM standard for each the spray booth is:

$E = 3.59 \times (<0.5)^{0.62} = 2.34$ lb/hr
(The source submitted a one-time demonstration on October 3, 2012 that shows the potential uncontrolled PM emissions cannot exceed the PM emission standard.)

f. **Emission Unit U-003 Shot Blast Area**

i. **Equipment**

Emission Process	Description	Applicable Regulations	Install Date
E-12	Rotary Shot Blast w/Dust Collector	7.08	9/2007
E-14	Rotary Shot Blast w/Dust Collector	40 CFR 63, Subpart XXXXXX	2013

ii. **Standards/Operating Limits**

1) **Opacity**

Regulation 7.08, section 3.1.1 establishes an opacity standard.

2) **PM**

In accordance with Regulation 7.08, Table 1, PM standard for each Emission Process is:
$E = 3.59 \times (28.2)^{0.62} = 28.46$ lb/hr

3) **HAP**

Regulation 40 CFR 63, subpart XXXXXX establishes management practices to be implemented by the source.

g. **Emission Unit U-005 Welding and Grind Area**

i. **Equipment**

Emission Process	Description	Applicable Regulations	Install Date
E-16	Grind Line (2 Stations)	7.08 40 CFR 63 XXXXXX	2010
E-18	Grind Line (2 Stations)		2010
E-20	Repair grind (welding)		2008
E-21	Hand Weld (9 stations)		2010
E-22	Robot Welder		2009
E-23	Robot Welder		2014

ii. **Standards/Operating Limits**

1) **Opacity**

Regulation 7.08, section 3.1.1 establishes an opacity standard.

2) **PM**

In accordance with Regulation 7.08, Table 1, PM standard for each grinder and welder is:

$E = 3.59 \times (<0.5)^{0.62} = 2.34$ lb/hr
(The source submitted a one-time demonstration on March 24, 2014 that shows the potential uncontrolled PM emissions cannot exceed the PM emission standard.)

3) **HAP**

Regulation 40 CFR 63, subpart XXXXXX establishes management practices to be implemented by the source.

III. Other Requirements

1. Temporary Sources: The source did not request to operate any temporary facilities.

2. Short Term Activities: The source did not report any short term activities.

3. Emissions Trading: N/A

4. Operational Flexibility: The source did not request any operational flexibility.

5. Compliance History: There are no records of any violations of the terms of the present or prior construction or operating permits.

6. Calculation Methodology:

Steel Cutting Area (U-001): Material Safety Data Sheets (MSDS), each machine's cutting rate and an emission factor of 0.03 lb PM/1,000 inches cut were used to determine Potential To Emit. HAP emissions shall be determined based on the MSDS of the steel. Source calculations may be based upon hours of operation of equipment.

Paint Booth Area (U-002): MSDS and usage information provided by the company were used to determine Potential To Emit. HAP emissions shall be determined based on the MSDS and amount used of the coating materials used in the paint booth.

Shot Blast Area (U-003): Material Safety Data Sheets (MSDS), each machine's blast rate and an emission factor of 0.004 lb PM/lb Abrasive were used to determine Potential To Emit. HAP emissions shall be determined based on the MSDS of the steel. Source calculations may be based upon hours of operation of equipment.

Welding and Grind (U-005): MSDS and usage information provided by the company were used to determine the Potential to Emit. HAP emissions shall be determined based on the MSDS of the welding wire/rod used in the welding process. Source calculations may be based upon hours of operation of equipment.

7. Insignificant Activities:

Equipment	Qty.	PTE (tpy)	Regulation Basis
Cold solvent parts cleaners with secondary reservoir	2	0.004 (VOC) total	Regulation 1.02, Appendix A
Space Heaters1	36	0.75 (PM_{10}) 0.18 (HAP) total	Regulation 1.02

1) Insignificant Activities identified in District Regulation 1.02 Appendix A may be subject to size or production rate disclosure requirements.

2) Insignificant Activities identified in District Regulation 1.02 Appendix A shall comply with generally applicable requirements.

3) Activities identified in Regulation 1.02, Appendix A, may not require a permit and may be insignificant with regard to application disclosure requirements but

1 These space heaters are comfort natural gas heaters, not process heaters, therefore Regulation 40 CFR 63 Subpart JJJJJJ is not applicable.

may still have generally applicable requirements that continue to apply to the source and must be included in the permit.

4) Emissions from Insignificant Activities shall be reported in conjunction with the reporting of annual emissions of the facility as required by the District.

5) In lieu of recording annual throughputs and calculating actual annual emissions, the owner or operator may elect to report the pollutant Potential To Emit (PTE) quantity listed in the Insignificant Activities table, as the annual emission for each piece of equipment.

6) The Insignificant Activities Table is correct as of the date the permit was proposed for review by U.S. EPA, Region 4.

7) The owner or operator shall submit an updated list of Insignificant Activities whenever changes in equipment located at the facility occur that cause changes to the plant wide emissions.

8. IA Emission Units with Applicable Regulations

a. Emission Unit IA-U-004 Cold Solvent Wash

i. Equipment

Emission Process	Description	Applicable Regulations	Install Date
E-14	Cold Solvent Parts Washer (Maintenance Area)	1.02 6.18	2007
E-17	Cold Solvent Parts Washer (Paint Booth Area)		2010

ii. Standards/Operating Limits

1) **VOC**

Per Regulation 6.18, the owner or operator shall observe specific operating requirements, and shall not operate a cold cleaner using a solvent with a vapor pressure that exceeds 1.0 mm Hg (0.019 psi) measured at 20°C (68°F).

b. Emission Unit IA-EG

i. Equipment

Emission Point	Description	Applicable Regulation	Basis for Applicability
IA –EG	Emergency diesel generators that installed after July 11, 2005 and manufactured after April 1, 2006, with a maximum engine power less than or equal to 500 HP and located at an area source of HAP.	40 CFR 63, Subpart ZZZZ, 40 CFR 60, Subpart IIII	40CFR60 Subpart IIII applies to manufacturers, owner or operators of new stationary compression ignition internal combustion engines. 40CFR63 Subpart ZZZZ establishes national emission limitations and operating limitations for HAP emitted from stationary RICE located at major and area sources of HAP emissions.

ii. Standards/Operating Limits

1) **Unit Operation**

(a) 40 CFR 60.4202 and 4205 establish emission standards for the owner or operator or manufacturer of the emergency stationary CI ICE.

(b) 40 CFR 60.4211 establishes unit operation requirements for emergency stationary CI ICE.

2) **Fuel requirements**

40 CFR 60.4207 establishes requirement for nonroad diesel fuel.

iii. **Monitoring and Record Keeping**

1) **Unit Operation**

40 CFR 60.4209(a) and 4214(b) establish monitoring and record keeping requirements for emergency stationary CI ICE.

iv. **Reporting**

1) **Unit Operation**

40 CFR 60.4214 establish reporting requirements for emergency stationary CI ICE.